Identification of Easily Confused Species of Chinese Materia Medica in Hong Kong by Macroscopic and Microscopic Characteristics Project

Flos Celosiae Cristatae versus Flos Celosiae Argenteae





Source

*Flos Celosiae Cristatae is the dried capitulum of *Celosia cristata* L. in the family Amaranthaceae Flos Celosiae Argenteae is the dried inflorescence of *Celosia argentea* L. in the family Amaranthaceae

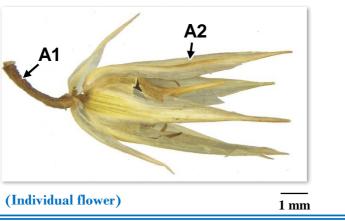
Overview

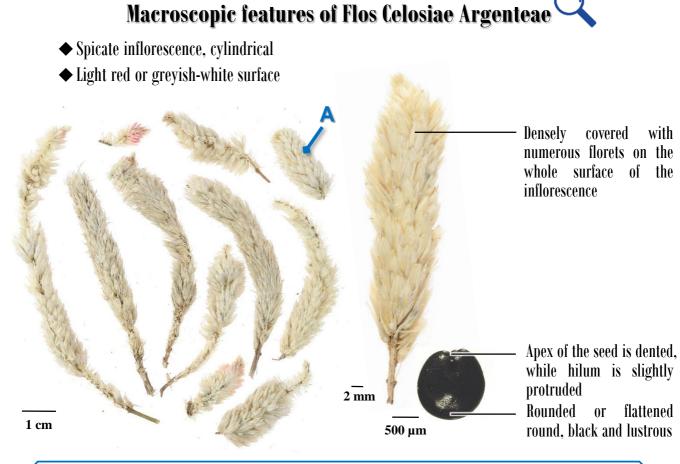
Flos Celosiae Cristatae is a Chinese Materia Medica (CMM) which is listed in Schedule 2 of the Chinese Medicine Ordinance and Chinese Pharmacopoeia (2020). On the other hand, Flos Celosiae Argenteae has not yet been included either references. According to the *Ben cao gang mu*, *Celosia argentea* has been named "*Ji guan xian*" as the leaves resemble a cockscomb ("*Ji guan*"), while the seedlings resemble amaranth ("Xian"). Moreover, *Celosia argentea* has also been named as "*Ye ji guan*" in the *Xin xiu ben cao*, where the name is similar to Flos Celosiae Cristatae ("*Ji guan hua*"). According to the Chinese Pharmacopoeia, Flos Celosiae Cristatae has astringent hemostatic properties, checks vaginal discharge and checks dysentery. While according to the *Zhong hua ben cao*, Flos Celosiae Argenteae can cool the blood and stop bleeding, clear the liver and drain dampness, and improve vision. Due to differences in efficacy, they should be used accordingly.

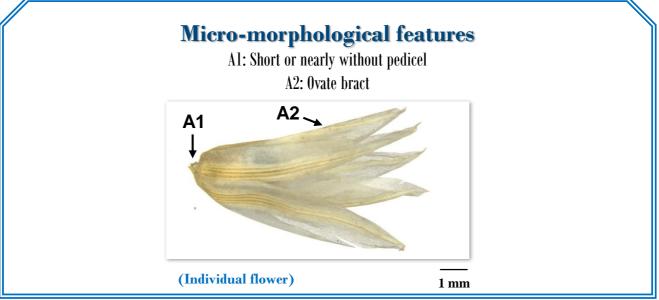
Flos Celosiae Cristatae vs Flos Celosiae Argenteae

Key identification features Macroscopic features of Flos Celosiae Cristatae ◆ Mostly flat, cockscomb-shaped, slightly obtriangular ◆ Red or yellow surface With corrugations at the upper part inflorescence 0f the Densely covered with linear scales at the upper part Denselv covered with numerous florets below the middle part Usually with remnant of flat and brown stem at the lower part Apex of the seed is dented, 2 cm while hilum is slightly protruded Flattened round. black 2 cm and lustrous 500 µm **Micro-morphological features** Al: Long pedicel

A1: Long pedicel A2: Triangular bract







Microscopic feature comparison of Flos Celosiae Cristatae and Flos Celosiae Argenteae powder 🖉

	Flos Celosiae Cristatae	Flos Celosiae Argenteae
Fragment of linear scale		
Fra	Consists of parenchymatous cell, linear epidermal cell, with vessels observation in the centre	Absent

50 µm

Summary

Major differences in the features between Flos Celosiae Cristatae and Flos **Celosiae Argenteae:**

		Flos Celosiae Cristatae	Flos Celosiae Argenteae
res	Shape	Mostly flat, cockscomb- shaped	Cylindrical
Macroscopic and micro-morphological features	Inflorescence	With corrugations and densely covered with linear scales at the upper part; densely covered with numerous florets below the middle part	Densely covered with numerous florets on the whole surface
mic	Flower	Long pedicel and triangular bract	Short or nearly without pedicel and ovate bract
Mieroscopic feature	Fragment of linear scale	Present	Absent

For more information, please refer to the Hong Kong Chinese Materia Medica

Standards website:



Celosiae Cristatae Flos - Hong Kong Chinese Materia Medica Standards (Volume 6)



Government Chinese Medicines Testing Institute Department of Health Enquiry Hotline: 3188 8079 Department of Health Website: www.cmro.gov.hk

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